

REMARKS

The applicant respectfully requests reconsideration in view of the following remarks. The Examiner maintains her previous 103 rejections. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murschall et al., US 5,436,041 (Murschall). Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speith-Herfurth et al., US 6,811,886 (Speith-Herfurth). Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cretekos et al., US 6,087,015 (Cretekos). The applicant respectfully traverses these rejections.

Rejection Over Murschall

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murschall. The Examiner correctly stated that Murschall discloses a biaxially oriented polypropylene film which can be sealed on both sides and which top layer C contains a polydialkylsiloxane which viscosity is greater than 40,000mm²/s (col. 3, lines 16-18). Murschall also mentions that the base layer may contain a hard resin.

The Examiner also refers to col. 11. In col. 11, lines 19 to 21 of Murschall, it is outlined that the film can be used as a carrier film for production of laminates with one or more of paper, card, metals, metallized films of plastic, and films of plastic.

The Examiner concludes that such disclosure suggests the cold seal adhesive coating as claimed in the applicant's claim 1. The Examiner argued at page 2, in no. 2, in the first full paragraph, that though Murschall does not specifically teach that the lamination method utilises a pressure sensitive or cold sealing adhesive as claimed it would have been obvious to use "cold lamination" as a conventional lamination method.

Lamination and cold seal application are two different fields of application, two different ways to process the film. In a lamination process, a single structure is produced from individual different webs of material. The purpose of lamination is to join these individual webs into one composite which is subsequently used for packaging or other application.

There are various methods for laminating the different webs, such as wet bonding, dry bonding, extrusion lamination. All these methods include that the application of the bonding adhesive and the laminating step is done within one process. The bonding material is applied across the whole surface of the one web and brought into contact with the other web to provide the laminate. This is explained very clearly in Susan Selke, "Understanding Plastics Packaging Technology" pages 60-63 (see enclosed).

Cold seal adhesives are applied to a single structure (which could be a laminate or a coextruded film). These cold seal adhesives are applied in a pattern, only in small areas where the seal seam is supposed to be. After the cold seal adhesives are applied onto the film surface such cold seal "coated" films are used on a packaging line for wrapping products. Cold seal adhesives are not used in a lamination process. A cold seal coated film is used on a packaging line, but is not laminated with another web of material. In order to support this fact enclosed is a second paper about cold seal adhesives, which does not refer to a lamination process anywhere (see "Cold Seal Adhesives, Nancy Smith Rohm and Haas Company). Also enclosed is an article which shows cold seal packaging as a replacement for laminated packages, EB Curable Overprint Release coatings for Cold Seal Flexible Packing" RadTech Europe November 2003).

The "cold lamination" according to the Examiner is a process which does not exist. Clearly cold seal adhesive coated film is a different field than a lamination process, wherein a two webs are brought into contact with one another immediately after the adhesive has been applied. In a lamination process a person of ordinary skill in the art is faced with different problems, whereas the issues with cold seal coated films are no problem in a lamination process. The adherence of the cold seal adhesive on the film surface is not an issue in a lamination process, cold seal deadening is not an issue, cold seal pick off is not an issue. A packaging film with a cold seal adhesive is wound and must be unwound when used on the packaging line. Such a step is not included in a lamination process. All these various issues are very critical in a cold seal application, but do not exist in a lamination process.

Consequently, the disclosure of lamination by Murschall does not suggest to use this film for cold seal adhesive. The Examiner confirms that Murschall does not disclose to apply a cold seal adhesive, nor any opposite release layer (see the last two lines at page 3 of the Office Action).

Although it might be state of the art that cold seal adhesives can be applied to bopp films in general, this generic knowledge does not render obvious to use any bopp packaging film for applying such cold seal adhesive. As a matter of fact a lot of bopp packaging films do not work for such cold seal application. The applicant has informed the undersigned, that in order to be useful for such cold seal adhesive the substrate film must meet certain technical criteria which are not required for bopp packaging film in general, e.g. the cold seal must adhere well enough on the bopp film surface, such that the cold seal adhesive is not picked off by the opposite film surface upon unwinding. Also the film composition may not cause any cold seal deadening, such that the adhesive force is well maintained.

There is no hint in Murschall that a bopp packaging film with polydialkylsiloxane (PDMS) in one cover layer works well in such cold seal application if -and only if- additional hard resin is added to the base layer. Though Murschall suggests that hard resin might be one of several potential additives in her film, there is no teaching on how such hard resin would affect the anchorage of the cold seal adhesive on the film surface. If a person of ordinary skill in the art tries the film of Murschall with PDMS in a cover layer for cold seal application he will find that such films fail due to bad anchorage of the cold seal adhesive and low seal seam strength (see example 1 versus comparative Example 1 of the applicant's application). A person of ordinary skill in the art cannot derive by any means from Murschall that this poor anchorage and weak seal seam strength can be improved by picking and choosing hard resin out of the list of potential additives. Murschall stated:

Any known additive in any desired effective amount can be used.
Examples of additives include antistatics and/or antiblocking agents and/or lubricants and/or stabilizers and/or neutralizing agents and/or low molecular weight hydrocarbon resins which are compatible with the polymers of the base layer and of the top layer(s). (see col. 7, lines 57-67)

“[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Furthermore, the Examiner cannot selectively pick and choose from the disclosed parameters without proper motivation as to a particular selection. The mere fact that a reference may be modified to reflect features of the claimed invention does not make the modification, and hence the claimed invention, obvious

unless the prior art suggested the desirability of such modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430 (Fed. Cir. 1990); *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible to simply engage in a hindsight reconstruction of the claimed invention where the reference itself provides no teaching as to why the applicant's combination would have been obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Therefore Murscall does not render obvious the invention as instantly claimed. For the above reasons, this rejection should be withdrawn.

Rejection Over Speith-Herfurth

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speith-Herfurth. Speith-Herfurth discloses multilayer, biaxially oriented polypropylene transparent film having a base layer of isotactic homopolymer comprising a hydrocarbon resin in an amount of from 1 to 20% by weight and at least one heat-sealable top layer and at least one interlayer. The interlayer comprises a wax in an amount of from 5 to 40% by weight, said wax having a mean molecular weight M_n of from 200 to 1200. The top layers may comprise stabilizers, neutralizers, lubricants, antiblocking agents and/or antistatics. It is not explicitly specified which lubricant should be used in the top layer. The only disclosure to silicon oil at all can be derived from the col. 8 line 10 – 30, where silicon oil mention as one of several potential lubricants for the inter layer.

In addition to the wax which is essential to the invention, the interlayer may comprise further conventional additives, such as, for example, the neutralizers, stabilizers and antistatics described above for the base layer and conventional lubricants, in effective amounts in each case.

Lubricants are higher aliphatic acid amides, higher aliphatic acid esters and metal soaps, as well as silicone oils. The addition of higher aliphatic acid amides and silicone oils is particularly suitable. It is noted that a **polydimethylsiloxone having a viscosity of 30,000 mm^2/s** is used in Example 1. However, the applicant's claimed invention requires the that the polydialkyl siloxane has a viscosity of **at least 200,000 mm^2/sec** . The applicant's claimed minimum is **OVER a factor of six greater** than Speith-Herfurth taught in example 1.

Therefore, Speith-Herfurth teaches away from the applicant's claimed polydialkyl siloxane having a minimum viscosity of at least 200,000 mm²/sec.

Again the Examiner argued it would have been state of the art to use any bopp packaging film for cold seal application. As already explained above this is not correct as many substrate films do not provide sufficient anchorage to the cold seal adhesive or cause cold seal deadening, such that the seal seam strength is too weak.

Again there is no hint in Speith-Herfurth that a film with polydialkylsiloxane (PDMS) with the applicant's required viscosity in one cover layer works well in such cold seal application if—and only if—hard resin is added to the base layer. Though Speith-Herfurth teaches that hard resin is incorporated into the base layer there is only a very generic and unspecific teaching in relation to the top layer, saying only that amongst other additives a lubricant might be used in the top layer. Such a generic hint does not render obvious to pick and choose a silicon oil with the claimed viscosity as a lubricant in the cover layer.

As stated above, “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Furthermore, the Examiner cannot selectively pick and choose from the disclosed parameters without proper motivation as to a particular selection. The mere fact that a reference may be modified to reflect features of the claimed invention does not make the modification, and hence the claimed invention, obvious unless the prior art suggested the desirability of such modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430 (Fed. Cir. 1990); *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible to simply engage in a hindsight reconstruction of the claimed invention where the reference itself provides no teaching as to why the applicant's combination would have been obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Therefore Murscall does not render obvious the invention as instantly claimed.

According to Speith-Herfurth silicon oil might be one of several potential additives in the intermediate layer of the film, but there is absolutely no teaching on how silicon oil with the

applicant' claimed viscosity in the top layer would affect the anchorage of the cold seal adhesive on the film surface (see the examples). If a person of ordinary skill in the art tries the film of Speith-Herfurth with hard resin the base layer for cold seal application he will find that such films have good anchorage of the cold seal adhesive and a good seal seam strength (see example 1 versus comparative example 2 ((uses polyethylene wax) of the applicant's application). The person of ordinary skill in the art will also find that the coefficient of friction (COF) of the film is unacceptable high, due to the hard resin in the base layer. In view of the required cold seal adhesive anchorage a skilled artisan would not have chosen to improve such a bad COF by adding silicon oil to the top layer because silicon oil weakens the good anchorage of the cold seal adhesive and destroys a good seal seam strength (this is demonstrated by comparative example 1). Moreover a person of ordinary skill in the art would not have been motivated to choose silicon oil with the applicant's claimed viscosity as a lubricant for in the top layer because Speith-Herfurth nowhere suggest or teaches to do so for whatever reason. A person of ordinary skill in the art would have no reason to expect that the silicon oil with the applicant's claimed viscosity does not have the known bad effect on the anchorage of the cold seal adhesive and on the seal seam strength, because a hard resin is incorporated in the base layer as well. The synergistic effect of combined hard resin and silicon oil with the applicant's claimed viscosity in the film on the use of the film for cold seal adhesive was completely unknown.

Therefore Speith-Herfurth does not render obvious this synergetic effect of hard resin in the base layer and silicon oil with the claimed viscosity in the top layer. For the above reasons, this rejection should be withdrawn.

Rejection Over Cretekos

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cretekos. Cretekos is similar to Murschall in that it is disclosed to use silicon oil in one cover layer of a bopp film. The hard resin a mere optional component which is suggested to be added for barrier purposes (see col. 6, lines 18-21). The Examiner confirms that Cretekos does not disclose to apply a cold seal adhesive, nor any opposite release layer (see the top of page 6 of the Office Action).

Accordingly the same arguments as explained in relation to Murschall apply. Although it might be state of the art that cold seal adhesives can be applied to bopp films in general, this generic knowledge does not render obvious to use any bopp packaging film for applying such cold seal adhesive. As a matter of fact a lot of bopp packaging films do not work for such cold seal application. The applicant has informed the undersigned, that in order to be useful for such cold seal adhesive the substrate film must meet certain technical criteria which are not required for bopp packaging film in general, e.g. the cold seal must adhere well enough on the bopp film surface, such that the cold seal adhesive is not picked off by the opposite film surface upon unwinding. Also the film composition may not cause any cold seal deadening, such that the adhesive force is well maintained.

There is no hint in Cretekos that a bopp packaging film with PDMS in one cover layer works well in such cold seal application if -and only if- additional hard resin is added to the base layer. Though Cretekos suggests that hard resin might be one of several potential additives in his film, there is no teaching on how such hard resin would affect the anchorage of the cold seal adhesive on the film surface. If a person of ordinary skill in the art tries the film of Cretekos with PDMS in a cover layer for cold seal application he will find that such films fail due to bad anchorage of the cold seal adhesive and low seal seam strength (see example 1 versus comparative Example 1 of applicant's application). A person of ordinary skill in the art cannot derive by any means from Cretekos that this poor anchorage and weak seal seam strength can be improved by picking and choosing hard resin out of the list of potential additives in cols. 5 and 6. Therefore Cretekos does not render obvious the invention as instantly claimed obvious. For the above reasons, this rejection should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

A one month extension fee has been paid. Applicant believes no additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 05581-00142-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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ENCLOSURE: Susan Selke, "Understanding Plastics Packaging Technology" pages 60-63
Cold Seal Adhesives, Nancy Smith Rohm And Haas Company
EB Curable Overprint Release Coatings For Cold Seal Fleixible Packing"
Radtech Europe November 2003